

Status Indicator

NOTE: ALL WIRES MUST BE CONNECTED AND POWER APPLIED BEFORE THE LED WILL ILLUMINATE.

The **ZoneDefender²** Series of suppressors has comprehensive, solid state, continuous visual status monitoring present in each unit. The GREEN indicator light will go out in the event the suppressor capability is exceeded or if there is an internal safety component failure. If the light goes out, call the factory for replacement instructions. When power is first applied, the unit does a brief internal diagnostic test. During this test, the RED LED will illuminate briefly, go off and then the GREEN LED will illuminate.

Diagnostic Indication

The **Zone Defender²** provides a patent pending diagnostic circuitry that monitors connected power and protection status. The following is a description of each indication.

GREEN (ON) AC POWER is present and protection is provided.
RED (OFF)

GREEN (OFF) AC POWER is present but the **Zone Defender²** needs replaced.
RED (ON) In addition, the remote indication will change states.

Remote Status Indication

The **Zone Defender²** provides for remote monitoring via a (normally open) or (normally closed) circuit. The circuit is rated for 3amps maximum at 60W DC or 120VA AC. The common wire is YELLOW, the normally open wire is BLUE and the normally closed wire is RED.

Maintenance

At intervals not exceeding two months, check:

1. Status indication light
2. Conditions of connecting cables

NOTE: No customer serviceable parts inside. Opening unit *WILL* void Warranty.



INSTALLATION INSTRUCTIONS/ USER MANUAL

ZoneDefender² Series

AC Panel Transient Voltage Surge Suppressor

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CONGRATULATIONS! YOU HAVE JUST PURCHASED THE BEST SURGE PROTECTION IN THE INDUSTRY!

Adhering to these instructions guarantees maximum performance of this Protection device.

Introduction

This document explains how to install the **ZoneDefender²** Series of AC Panel Surge Protective Devices.

Installation Instructions

Mounting: The suppressor should be mounted as close to the panel and wire connections as possible. The shortest and most direct wire connections will ensure best performance. Use the four mounting holes located on the tabs to secure unit to a solid flat surface. The type of hardware used to mount the **Zone Defender²** will depend on the mounting structure and are not included with the unit.

Flush Mounting: The flush mount **ZoneDefender²** Series is installed into a suitably sized (5.5" H x 4.5" W) hole in the wall. This hole needs to be large enough for the body of the suppressor, yet not exceed the flush mount plate mounting holes. Choose a location near the panel that will give the most direct connection to the phase conductors and neutral-ground busses. Use a pre-existing 1/2" conduit knock-out or drill a new 1/2" conduit hole in the panel. Remove the conduit nut from the **ZoneDefender²** Series and slide the wires and conduit nipple into the panel. A short piece (less than 3") of plastic conduit may have to be added to the **ZoneDefender²** Series. Connect either the close nipple on the **ZoneDefender²** Series or the short additional piece of conduit to the panel. Use the four mounting holes on the **ZoneDefender²** Series flush plate and secure it to the wall using appropriate hardware (not supplied). Connect wires as described below.

AC Power Connections

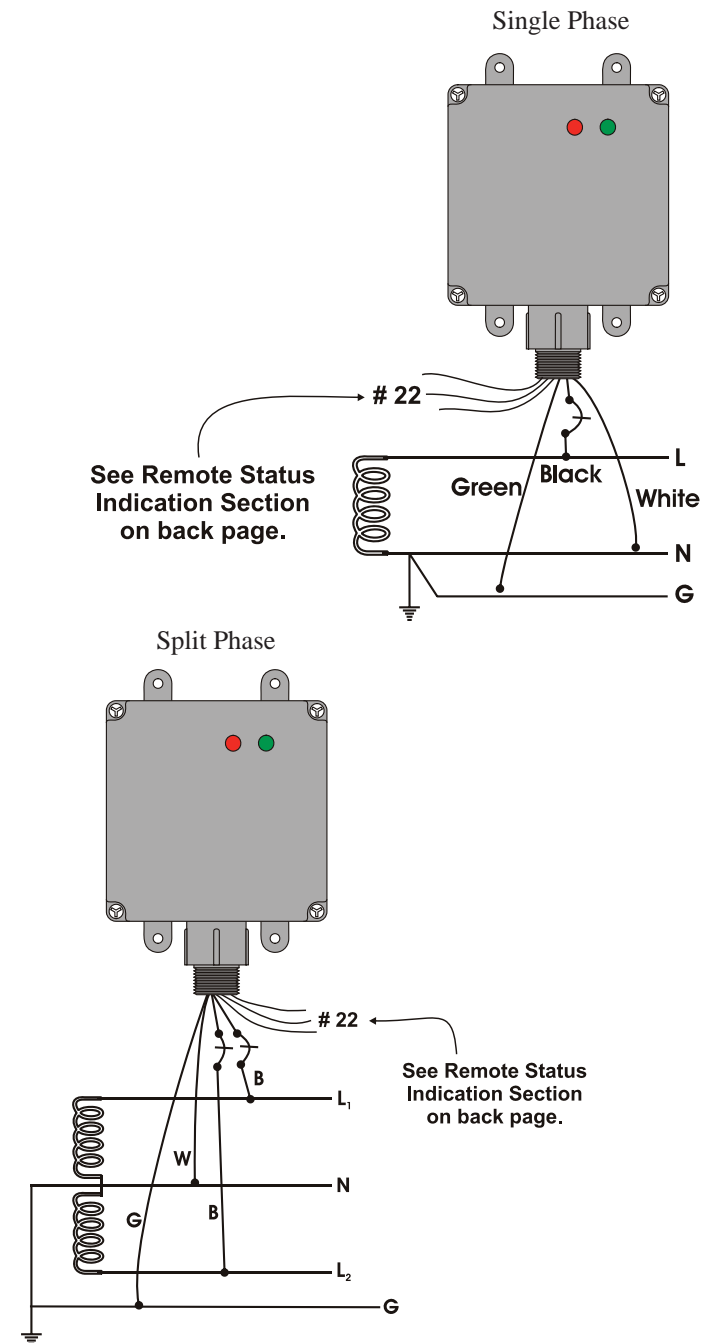
Proper wiring techniques associated with the National Electrical Codes should be followed. A circuit breaker (15A) is **required** in the event the connection wires short or the **ZoneDefender²** needs servicing.

The 1/2" nipple on the **Zone Defender²** can be inserted directly into an existing panel knockout to ease the wire connections between the panel and the **Zone Defender²**. If the mounting location prevents this type of installation proper conduit fittings should be used in order to protect the connecting wires.

When making the connections, cut each conductor **as short as possible**. Avoid large loops and sharp bends in the wire. Bind all connecting wires tightly together throughout the wire run from the **Zone Defender²** to the panel. Connect the BLACK wires to the phase conductors, connect the WHITE wire to the neutral bus and connect the GREEN wire to the ground bus.

INCORRECT INSTALLATION WILL IMPAIR THE EFFECTIVENESS OF AC PANEL SURGE PROTECTORS. Particularly important is the length and routing of the connecting leads.

Connection Diagrams



Note: Circuit breaker (15) is **MANDATORY**.